

Amendment to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-27. Cancelled (Without disclaimer or prejudice).

28. (New) A method for providing location privacy for a terminal node in communication with a communication partner node in a communication network system comprising at least a first communication network, wherein a respective node communicating via said communication network system is identified by its permanent network address and is addressable by a temporary network address, at least one server entity, a plurality of agent entities, wherein each of said at least one server entities maintains a record of said plurality of agent entities and their respective location within the network system,

said method comprising the steps of:

requesting, by said terminal node, said at least one server entity for location privacy;

selecting, at said at least one server entity, a specific one of said plurality of agent entities, based on data maintained in said record of said server entity and said temporary network address of said requesting terminal node; and

communicating messages between said terminal node and said communication partner node via said selected one of said agent entities.

29. (New) A method according to claim 28, wherein:

said request includes the network address of said communication partner node with which a communication is desired to be performed, the permanent network address of said requesting terminal node, and said temporary network

address of said requesting terminal node by which it is addressable within said communication network system.

30. (New) A method according to claim 28, wherein:
said respective location of said agent entities is derivable based on a network domain to which the agent entity is assigned, the domain being represented by a network address range in the network.

31. (New) A method according to claim 30, wherein:
said selecting is based on said known network address of said communication partner node with which a communication is desired to be performed, which is included in said request.

32. (New) A method according to claim 31, wherein said selecting comprises the steps of:
first retrieving a first network domain represented by a network address range to which address range the temporary address of the requesting terminal node belongs;
second retrieving a second network domain represented by a network address range to which address range the address of the communication partner node belongs; and
determining the agent entity to be selected, based on said retrieved information.

33. (New) A method according to claim 28, further comprising a step of:
informing said requesting terminal node about the selected agent entity before communicating messages.

34. (New) A method according to claim 34, further comprising the steps of:
creating, by said terminal node at said selected agent entity, a mapping between the terminal node's permanent network address and its temporary network address; and

creating, by said terminal node at said communication partner node, a mapping between the terminal node's permanent network address and the selected agent entity's address.

35. (New) A communication network system, comprising:
at least a first communication network wherein a respective node communicating via said communication network system is identified by its permanent network address and addressable by a temporary network address;
at least one server entity; and
a plurality of agent entities; and wherein
each of said at least one server entity maintains a record of said plurality of agent entities and their location within the network system.

36. (New) A communication network system according to claim 35, wherein:
said respective location of said agent entities is derivable based on a network domain to which the agent entity is assigned, the domain being represented by a network address range in the network.

37. (New) A communication network system according to claim 35, wherein:
to each of said communication networks there is associated one of said server entities.

38. (New) A communication network system according to claim 35, wherein:
to each of said communication networks there is associated a plurality of said agent entities.

39. (New) A server entity in accordance with claim 35, each server, comprising
a database means adapted to maintain a record of a plurality of agent entities and their respective location within a communication network system; and
a processing means adapted to select a specific one of said plurality of

agent entities, based on data maintained in said record and a temporary network address of a requesting terminal node.

40. (New) At least one server entity according to claim 39, wherein:
said respective location of said agent entities is derivable based on a network domain to which the agent entity is assigned, the domain being represented by a network address range in the network.

41. (New) At least one server entity according to claim 40, wherein said processing means comprises:

selection means which comprises first retrieving means adapted to retrieve a first network domain represented by a network address range to which address range the temporary address of the requesting terminal node belongs;

second retrieving means adapted to retrieve a second network domain represented by a network address range to which address range the address of the communication partner node belongs; and

determination means adapted to determine the agent entity to be selected, based on said retrieved information.

42. (New) At least one server entity according to claim 39, wherein:
said record is configured by a network operator dependent on a topology of a communication network forming a communication network system.

43. (New) At least one server entity according to claim 39, wherein:
said record is configured by a network operator dependent on a topology of a communication network forming a communication network system, and said server entity is adapted to extend said record by adding record information from other server entities within said communication network system.

44. (New) At least one server entity according to claim 39, further comprising:

transmission means adapted to receive and send information used for forming and maintaining said record, receive requests from terminal nodes; and to send processing results to a requesting terminal.

45. (New) At least one server entity according to claim 44, wherein: said transmission means is adapted to send processing results to a selected agent entity.

46. (New) An agent entity, comprising:
a memory means adapted to cache a mapping of a permanent address identifying a terminal node to a temporary address of said terminal node indicative of a location of said terminal node; and

routing means adapted to forward data packets received from said terminal node to an addressed communication partner node and to forward data packets received from said communication partner to said terminal node, wherein said forwarding is based on the cached mapping information in said memory means.

47. (New) In a communication network system, comprising:
at least a first communication network wherein a respective terminal node communicating via said communication network system is identified by its permanent network address and addressable by a temporary network address;

at least one server entity;

a plurality of agent entities; and wherein

each of said at least one server entity maintains a record of said plurality of agent entities and their location within the network system, wherein said terminal node is adapted to carry out the method according to claim 28.

48. (New) A server entity according to claim 42, wherein:

said record is configured by a network operator dependent on a topology of a communication network forming a communication network system, and said server entity is adapted to extend said record by adding record information from other server entities within said communication network system.

49. (New) In a communication network system, comprising:

at least a first communication network wherein a respective terminal node communicating via said communication network system is identified by its permanent network address and addressable by a temporary network address;

at least one server entity;

a plurality of agent entities; and wherein

each of said at least one server entity maintains a record of said plurality of agent entities and their location within the network system, wherein said terminal node is adapted to carry out the method according to claim 29.

50. (New) In a communication network system, comprising:

at least a first communication network wherein a respective terminal node communicating via said communication network system is identified by its permanent network address and addressable by a temporary network address;

at least one server entity;

a plurality of agent entities; and wherein

each of said at least one server entity maintains a record of said plurality of agent entities and their location within the network system, wherein said terminal node is adapted to carry out the method according to claim 30.

51. In a communication network system, comprising:
at least a first communication network wherein a respective terminal node communicating via said communication network system is identified by its permanent network address and addressable by a temporary network address;
at least one server entity;
a plurality of agent entities; and wherein
each of said at least one server entity maintains a record of said plurality of agent entities and their location within the network system, wherein said terminal node is adapted to carry out the method according to claim 31.

52. (New) In a communication network system, comprising:
at least a first communication network wherein a respective terminal node communicating via said communication network system is identified by its permanent network address and addressable by a temporary network address;
at least one server entity;
a plurality of agent entities; and wherein
each of said at least one server entity maintains a record of said plurality of agent entities and their location within the network system, wherein said terminal node is adapted to carry out the method according to claim 32.

53. (New) In a communication network system, comprising
at least a first communication network wherein a respective terminal node communicating via said communication network system is identified by its permanent network address and addressable by a temporary network address;
at least one server entity;
a plurality of agent entities; and wherein
each of said at least one server entity maintains a record of said plurality of agent entities and their location within the network system, wherein said terminal node is adapted to carry out the method according to claim 33.

54. (New) In a communication network system, comprising:
at least a first communication network wherein a respective terminal node communicating via said communication network system is identified by its permanent network address and addressable by a temporary network address;
at least one server entity;
a plurality of agent entities; and wherein
each of said at least one server entity maintains a record of said plurality of agent entities and their location within the network system, wherein said terminal node is adapted to carry out the method according to claim 34.